

THE ALBERTA MUNICIPAL Counsellor

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MUNICIPAL SHARE TOPS \$22,600,000

• 368 CHEQUES MAILED IN APRIL

ONE-THIRD OIL & GAS ROYALTY

Cheques totalling \$22,657,017 were mailed to Alberta municipalities in April. Payments are unconditional and are made under The Municipalities Assistance Act. The amount of the 368 cheques this year is up approximately \$5,731,000 from the \$16,926,000 distributed under the Act in 1965.

Paving the way for the increased amount was an amendment to The Municipalities Assistance Act which was approved by the Legislature at its recent session. Total appropriation for 1965 was based on the population of the Province multiplied by \$12 whereas the recent amendment provides that the total for distribution in 1966 shall be an amount equal to one-third of the oil and gas royalties received by the Province during the previous calendar year. It has been pointed out, however, that under this provision the total municipal share would be less in the event that royalties are reduced.

Totals distributed under the plan to each class of local authority in Alberta for 1966 as compared with last year are as follows:

CLASS	1965	1966
10 Cities	\$ 8,033,028.03 . . .	\$10,140,672.41
93 Towns . . . . .	.1,785,430.86 . . .	.2,250,069.88
167 Villages . . . . .	.583,751.35 . . .	.718,376.73
27 Counties . . . . .	.3,803,688.72 . . .	.5,217,540.40
21 Municipal Districts . . . . .	.2,079,167.81 . . .	.3,237,016.97
45 Improvement Districts . . . . .	.488,669.80 . . .	.912,306.93
Special Areas . . . . .	.85,081.69 . . .	.102,762.63
4 S.D.'s in National Parks . . . . .	.67,181.74 . . .	.78,271.05
368 Local authorities	\$16,926,000.00 . . .	\$22,657,017.00



PUBLIC EXPENDITURE & REVENUE STUDY COMMITTEE: Members as they appeared at one of their final meetings are (Clockwise) Mayor Vince Dantzer of Edmonton, representing the Alberta Catholic School Trustees Association; H. W. Bliss, Alberta School Trustees Association; R. A. Splane, Treasury Department, Committee secretary; E. L. Martiary, Alberta Chamber of Commerce; Hon. Ray Reiersen, Minister of Labour, Minister of Telephones, Deputy Chairman of the Committee; Hon. H. E. Strom, Minister of Agriculture; Hon. A. O. Aalborg, Provincial Treasurer, Committee Chairman; E. Newman, Executive Secretary, Union of Alberta Municipalities; C. E. Parry, Associated Hospitals of Alberta; Dr. G. L. Burton, Alberta Federation of Agriculture; J. M. McKay, Alberta Association of Municipal Districts and Counties; F. C. Bodie, Alberta Federation of Labour; J. K. McIntosh, representing the Farmers Union of Alberta.

(Alberta Government Photo)

• RECOMMENDATIONS BEFORE EXECUTIVE COUNCIL

COMMITTEE REPORT TABLED

The final report of the Public Revenue and Expenditure Study Committee appointed in November of 1963 was tabled in the Legislature in March and the recommendations contained in it are now under consideration by Alberta's Executive Council. (Excerpts from the 367 page report begin on Page 4.)

Purpose of the Committee was to conduct a factual study of public expenditures being made in the Province and the manner in which spending may be controlled and services financed in the best interests of the people.

During its more than two years of study, the Committee made comprehensive surveys of various departments of the Alberta Government and in addition sought the views of individuals and non-government organizations having special interest in each department. In its work the Committee held 51 meetings covering 72 days and received 31 submissions from a wide variety of provincial organizations, as well as major representations from the departments surveyed.

• 33 YEARS IN MUNICIPAL LIFE

DEATH CLAIMS C. J. CHRISTIE

Funeral services were held at Three Hills in March for Charles John Christie, prominent figure in the municipal scene for over 33 years. His death on February 26 was just six weeks before his 76th birthday.

(To Page 2)

• SLATED FOR CALGARY IN 1967

ASSESSORS HOLD CONFERENCE

The Alberta Assessor's Association Conference held at the Edmonton Inn April 14 and 15 was attended by 240 industrial representatives, departmental assessors, city assessors and private assessors. Delegates were welcomed to the conference by A. W. Morrison, Deputy Minister of Municipal Affairs who stressed the need for communication to the ratepayers so as to establish a better understanding of assessments by the public.

J. B. Laidlaw addressed the group on new legislation and what its general impact would be as ratified by the legislature.

George Hughes, Appraiser Consultant, reported on the last Canadian Convention held in Halifax in 1965 and W. Cook, Rural Assessor, outlined points brought up at the Canadian Director's meeting held in Saskatoon November last.

On Thursday afternoon two workshops were held chaired by Peter Cormack Sr., Assessor for the City of Calgary. Mr. Cormack was ably assisted by A. Nicholson of the British American Oil Co., B. Robinson, Appraiser Consultant, Calgary and J. McCormick, Shell Oil Company of Canada Ltd.

The commercial workshop speakers included P. H. Hamilton, Appraiser, Calgary; R. A. Reid, City Assessor, Edmonton; and D. McCullagh, Senior Planner, Edmonton. The workshops were well conducted and sparked much interest from the delegates.

Friday morning fraternal greetings were received from E. Newman, Executive Secretary, Union of Alberta Municipal. (To Page 2)

THE SECOND PAGE . . .

o By Arthur Sherrill

BAD SPELL OF WEATHER

I'd like to live my whole life through
And have my troubles be but fough.
I'd like to have a lot of dough
And never have to lift a hough.
I'd like to sit beneath a bough
And be as lazy as a cough.
But rough and tough, I've had enough!
I'd like to write more simple stough.
I've got a cold, I've got a cough -
I'd better take a few days ough.
Through, bough, dough, tough, cough, ough
to rhyme.
Perhaps they will some other theme!

IIMC News Letter

WEST OF WHERE?

Some time last fall a school pupil in the Camrose district asked his teacher what was meant specifically where a legal description ends up with "west of the 4th or other meridian". The teacher couldn't rightly say, so he asked The Camrose Canadian who (or which) couldn't provide the whole answer either. An editorial posed the question to readers of The Canadian and finally Ron Maslin, Director of Battle River Regional Planning Commission, with an historical assist from T.E. Rippon, A.L.S., and J.H. Holloway, A.L.S., came up with the answer.

We found both the editorial and Mr. Maslin's letter most interesting and are quoting from each in the hope that if anyone shared our ignorance he may now with jubilation share our newly-garnered knowledge.

The editorial writer said he had traced back "on a series of maps" and found "the zero meridian for purposes of this (geodetic) survey runs just east of the Manitoba-Ontario boundary."

"But why it runs there (the editorial continues) we don't know. Was it part of Captain Palliser's survey of the prairies? And why is the provincial boundary not used? Maybe it has to do with the older style survey used in Ontario many years ago, where areas 100 chains square were named concessions, much as our square mile is named a section. Incidentally, the 100 chains measured a mile and a quarter, or 6600 feet. It might be interesting to know how and why we switched from surveying in concessions, with its decimal advantage, to sections."

Those were the questions posed in the editorial. We come now to Mr. Maslin's answer. Here is part of it:

I would like to provide some of the answers to your recent editorial "West of What?" A land description under the five systems of survey used on the Canadian prairies locates a quarter section first, then the section number with the township and finally locates the township by a number which indicates its distance north of the 49th parallel of latitude (thus township 46 is 45 townships or 270 miles north of the international boundary) and finally its longitudinal position.

It is this final part of the township description that requires the use of meridians. Each township is square, but as every student knows, meridians of longitude converge at the North and South Poles so that the distance between the meridians is constantly changing. The big problem on land as vast as the prairies is to map on a flat surface with straight lines, a piece of land which is part of a globe. In order to constantly correct the survey system to the globe, the surveyors set up actual longitude lines from which to keep restarting the survey.

The principal meridian passes through the Pembina astronomical observation station which is located ten miles west of the point where the Red River crosses the 49th parallel. This point was established in 1869 and was probably chosen so that the meridian would not have to cross the Red River. Such a crossing would have presented difficulties of accurate measurement in a day of less sophisticated measuring devices than those available today. The actual true longitude of the meridian is 97 degrees 27' 28.4"W.

* * * * *

There are five survey systems in use in Western Canada. The first system uses basic townships of 36 sections and has a 99 foot road allowance around each section and only the eastern edge of the township was a true meridian - all other north-south lines being parallel

to it. This system is used in Southern Manitoba and two isolated areas of Saskatchewan.

The second system is used the least and exists only in Southern Saskatchewan and its variation from the first system is that all north-south lines are true meridians.

The third system is that used in the largest part of Saskatchewan and all of Alberta. In this system the road allowances are reduced to 66 feet and there is no road allowance along the north boundary of each alternate section. Recent changes in Northern Alberta now allow 99 foot road allowances in this system.

The fourth and fifth systems only exist in B.C. and make different allowances for roads, the fifth system being based on the Coast meridian which commences at the intersection of the 49th parallel and Boundary Bay.

The second meridian lies at the boundary between the first and second systems of survey at the Manitoba - Saskatchewan boundary, longitude 102 degrees W. Under the third system of survey the meridian locations are set down at 4 degrees longitude intervals (30 townships at the 49th parallel) and are located at 106 degrees W (third meridian), 110 degrees W (fourth meridian) the Alberta - Saskatchewan boundary, 114 degrees W (fifth meridian) locally running through Mulhurst on Pigeon Lake and 118 degrees W (sixth meridian) 30 miles east of Grande Prairie.

DEATH CLAIMS C. J. CHRISTIE

(From Page 1)

Born in Alloa, Scotland, Mr. Christie came to Canada in 1911 and two years later settled on a farm west of Trochu. From 1928 to 1940 he served the old Municipal District of Stauffer first as councillor and then as reeve. This was followed by 3 years as secretary-treasurer of the small district and when the enlarged Municipal District of Kneehill No. 48 was formed in 1944, Mr. Christie held the positions of assistant secretary-treasurer and assessor. His retirement came in 1961.

ASSESSORS HOLD CONFERENCE

(From Page 1)

ities, and C. L. Doan, Vice-President, Association of Municipal Districts and Counties.

J. E. Hawker, Director of Alberta Vocational Colleges, spoke about the role of colleges in the appraisal and assessment field and the curriculum and courses available to prospective students.

Professor D. A. Bancroft, University of Alberta, outlined the program of the Saskatchewan Assessors' Conference held on the first of December, 1965. He made some comparisons between assessment procedures in Saskatchewan and in Alberta.

A very interesting subject "World Sugar" was discussed by Ian Angus, General Manager for the Canadian Sugar Refineries Ltd., who outlined the trails and tribulations that a major industrial company has when they own extensive holdings in a place like the Dominican Republic, not exactly a foreign investors' cup of tea.

The afternoon session of the Assessors' Association conference was taken up with amendments to the Constitution and election of officers. A lively debate revolved around the "Certification of Assessors" amendment and after eighty minutes of discussion it was finally passed.

At a business meeting held Friday, Peter Cormack, City Assessor for Calgary, was elected president of the Association for 1966 with Dick Pearce, City Assessor for Medicine Hat, to serve as vice-president. Barney Barnett, Evaluator of Calgary, is secretary and Ted Aldridge, Assistant Assessor of Calgary, treasurer.

Directors of the Association are retiring president A. R. Isbister, Douglas McCol, Red Deer; J. A. MacDonald, County of Mountain View; Stewart Scott, DMA; Henry Gerlock, DMA; Al Nicholson, British American Oil.

Three Canadian directors were also elected. These are President Peter Cormack, A. R. Isbister, Director of Field Service, and D. E. Mills, Chief Provincial Assessor.

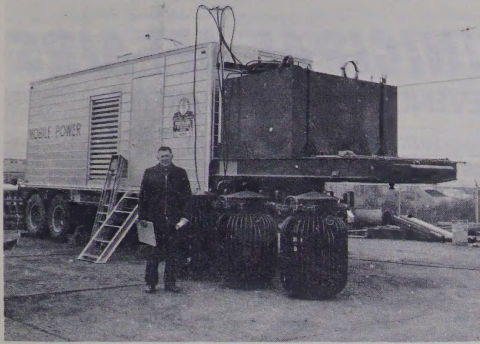
A well-attended social evening held in the Crystal Hall of the Edmonton Inn brought the 1966 conference to a successful conclusion. (P. H. C.)

THE ALBERTA MUNICIPAL COUNSELLOR

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Edmonton, Alberta



MORE POWER FOR ALBERTA: Mobile generating unit, capable of providing emergency electric service for a town of 1,200 to 1,500 people, was put into service by Canadian Utilities in 1965. Its uses will include the provision of on-site power generation for emergencies such as storms which may cause major system breakdowns, temporary



power during rebuilding of lines and sub-stations and service to rural areas during major line changes. It is particularly suitable for backing up isolated northern plants in case of generator breakdowns. (Right) First unit of the Big Bend hydro plant southwest of Drayton Valley was placed in operation in April, 1965. (Wells Studios)

THE PAST TEN YEARS OF POWER

FROM THE 1965 REPORT OF THE ALBERTA POWER COMMISSION

● J. G. MacGREGOR, Chairman ● J. E. OBERHOLTZER, Member ● W. G. WHITTAKER, Member ● J. L. REID, Member and Secretary

The growth of the electric utility industry since 1955 presents a most interesting picture. This growth, of course, is what might have been expected in a rapidly developing province where the population jumped from 1,066,000 in 1955 to 1,451,000 in 1965. During this decade the capacity of power plants rose from 477,000 K.W. to 1,326,000 K.W. (178%) while the KWH generated increased from 1,707,000,000 to 5,137,677,000 (201%). During this interval the number of customers increased by 58% from 267,000 to 423,000, while the number of farms served rose from 34,768 to 64,886. The miles of power line rose from 36,233 to 66,032. At the same time, keeping pace with the growing wealth of the province and its growing industrialization, the KWH generated per capita rose from 1,621 to 3,541. That is, it more than doubled. Similarly, the KWH used per farm increased from 2,882 to 6,096 per year.

A brief look at the actual power plants and transmission lines that have come into service during the period presents a picture of an industry growing with the province, and, by means of an interconnected grid of transmission lines, reaching out to all its remote corners. In 1955, on the Kananaskis River, the Pocaterra and Interlakes plants added 20,000 KW to the generating capacity. Other additional Calgary Power hydro units were Cascade, 18,000 KW, Rundel, 30,000 KW, Spray, 50,000 KW, and finally in 1965, the first unit of 150,000 KW was installed on the Brazeau River.

Side by side with these has come a rather spectacular increase in thermal plants. The large City of Edmonton power plant increased its capacity by 234,000 KW, that is, during the last ten years it doubled in capacity and then nearly doubled again. During that interval when gas turbines, a relatively new development in prime movers, were to some extent in the experimental stage, the City installed two of these machines which were rated at 30,000 KW each. When the first one went in, it was the largest gas turbine generating unit in the world. As well as these gas turbines, however, the City installed one 30,000 KW steam turbine and followed it by two 72,000 KW machines. Rapid strides were being made in developing larger steam turbines and both the City of Edmonton and the power companies took advantage of these developments.

During the decade, Canadian Utilities Ltd. commenced utilizing coal from the Battle River strip mine and to date has installed two turbines of 33,000 KW each, while Lethbridge installed a 10,000 KW gas turbine.

In 1956, Calgary Power Ltd. started its Wabamun coal-fired plant on a strip mine capable of producing extremely low cost coal. Into this plant went two 72,000 KW machines and one rated at 150,000 KW. The second of Alberta's large strip mine projects was underway utilizing the latest large size turbines.

In total, starting from a power plant capacity of 477,000 KW at the beginning of the period, 849,000 KW were added, an increase of 178%. Perhaps more significant than that however has been the rapid step up to large size modern thermal units during this decade.

These larger size units, bringing with them the benefit of scale, have been a major factor in keeping the cost of power down.

FIFTEEN SEPARATE SYSTEMS:

At the beginning of this ten-year period, in addition to the major interconnected plants listed above, there were some fifteen separate systems of isolated towns served by plants that were not tied into the main system. During the past ten years, all of these, except Jasper and Ft. McMurray, have been tied together and many small inefficient plants have been shut down.

Equal in drama to the building of large steam and hydro plants has been the construction of the network or major transmission lines that now form the Alberta grid. This ties the electrical facilities of the province together from the Cypress Hills in the southeast corner to Paddle Prairie in Township 103, Range 22W5. Paddle Prairie, the most westerly point, is approximately 300 miles west and 600 miles north of the extreme southeast point in the system.

While the first lines interconnecting the various cities and power companies were built in the early 1930's, and other similar lines including one to British Columbia were added from time to time, the last ten years have seen the major strides in this direction. During this period some 1,200 miles of 69 KV lines have been built as well as approximately the same mileage of 132 KV or higher lines. Now there are double the mileage of 69 KV lines that there were ten years ago and two and one-half times as many miles of 132 KV or higher voltage lines.

Whereas, at the beginning of the period, the 132 KV or higher lines generally emanated from Calgary Power Company's Bow River plants and ran north to Edmonton, east to Medicine Hat and southward to connect with British Columbia in the Crow's Nest Pass, now they connect the major power centres of the province. One set of these lines, including interconnecting loops runs from Calgary to Medicine Hat and back by way of Lethbridge and Ft. McLeod to Calgary. Another set runs east of Edmonton to Vermilion and thence south to Canadian Utilities Ltd. Battle River plant. This ring will soon be completed back to Red Deer. Other lines now connect Edmonton and the Wabamun plant and continue west to Hinton. A new line now runs south from Wabamun to a junction point west of Red Deer where it picks up a line from the Brazeau plant and then goes south to Calgary. Finally, a 132 KV line now connects Canadian Utilities' Valleyview plant with the Wabamun plant, that is, it interconnects the Peace River system with the rest of the province.

While all these 132 KV lines have been built, an equal mileage of 69 KV lines have been run here and there in the province. For one thing, the Swan Hills and associated oilfields entered the picture culminating recently in the Slave Lake-Mitsue field. Power for these areas is supplied off the main grid and interconnections of lesser magnitude now link up this field including one which joins Calgary Power Company's lines in the vicinity of Chisholm with Canadian Utilities lines which run along Lesser Slave Lake and that river. (To Page 5)

A SURVEY OF THE DEPARTMENT OF MUNICIPAL AFFAIRS

BY THE PUBLIC EXPENDITURE & REVENUE STUDY COMMITTEE

● BEGINNING CHAPTER VII OF "THE COMPLETE AND FINAL REPORT" OF THE COMMITTEE

BECAUSE of the nature and stature of the Report of the Public Expenditure and Revenue Study Committee, we believe municipal people will welcome an opportunity to study it at some length. The accompanying excerpt is from Chapter VII which deals with the DEPARTMENT OF MUNICIPAL AFFAIRS. Further instalments taken from this chapter will be published in the months to come. Ed

The British North America Act (Section 92) gave to the Legislatures of the provinces exclusive jurisdiction over municipal institutions within the province. Municipal governments do not, therefore, enjoy a constitutionally defined and protected position in our institutional framework of government. They are "creatures" of their creator, the provincial government. The latter may delegate to them only such revenue raising powers as it itself possesses.

Prior to the creation of the Province of Alberta some municipal institutions had been established by the Council under the authority of the North-West Territories Act of 1875. By 1905 only cities (2), towns (15), and villages (30) had been incorporated. These included Calgary (1884), Lethbridge (1891), Macleod and Edmonton (1892) and Medicine Hat (1899).

Before 1905 there were no rural municipal organizations as we know them. In retrospect the reasons seem evident. The minimum area required for a rural municipality was four townships. Population was sparse, roads and transportation facilities poor and the settlers primarily concerned with developing their farms. School districts were established as well as a number of Statute Labour and Fire Districts. The latter built roads and fire-guards, under the supervision of an elected overseer, using the contributions of labour and teams from settlers - hence their name. By 1905 there were some 70 of these local districts. The impetus for the establishment of these local districts appears to have come from the Territorial Council rather than from the demands of local residents.

After 1896 the prairies began to fill up with settlers; railways were built and the Territorial Government pressed for provincial status, better to meet the insistent demands for local services. Following the establishment of the Province a large number of local improvement districts were organized under the aegis of the Department of Public Works. The clerk in charge of the Local Improvement Branch was endowed with the title of Tax Commissioner and given the power to inspect the books of the local districts, a responsibility which his modern counterpart still discharges.

The Department of Municipal Affairs was established by The Department of Municipal Affairs Act which was assented to December 20, 1911. This new department was charged with:

1. The administration of The Town Act, The Village Act, The Rural Municipality Act and The Local Improvement Act.
2. The levying and collection of local improvement taxes in unorganized areas and the educational tax on lands outside of school districts.
3. The responsibility of assisting local governments in the collection of tax arrears.

The Province was divided into 9 township squares; those petitioning for local government became municipalities; the others, organized or unorganized local improvement districts, at the discretion of the Minister. In 1918 all organized improvement districts were required to become municipalities and their names changed to Municipal Districts. Assessment was introduced and the acreage tax abandoned. A provincial assessment equalization board was established since the Provincial Government had begun to levy taxes on land. The matrix of the present system of local government in rural areas had been established.

While the initiative behind the formation of rural local government came from above, the converse prevailed with the cities and towns. Cities were established by special ordinance, towns by The Town Act of 1912 and villages by The Village Act of 1913. Requirements as to minimum population, maximum area and election of councils were laid down. Again the pattern of non-rural local self-government which was to persist for decades had been determined.

In the section of this report dealing with education, we have

traced the consolidation of the many small school districts into larger school divisions, the re-organization of the small rural municipalities into larger municipal districts during the early 'forties and, finally, in the 'fifties the re-alignment of the boundaries of school divisions and municipalities in order to make them co-terminus. At the same time the improvement districts were amalgamated and enlarged.

Two other types of municipal organization have emerged. During the 'thirties drought and low prices of farm products so reduced the tax paying capacity of farmers in some of the more arid areas of the south-eastern part of the Province as to force them to abandon local self government. Some municipal districts reverted to the status of Improvement Districts and others to Special Municipal Areas - both administered by the Department of Municipal Affairs.

Two of these Special Municipal Areas still persist. They are administered by a three-man board appointed by the Department and a local advisory board which meets once a year. The school divisions continue to function in the Special Areas as in other parts of the province.

The second type of municipal organization to emerge is the county. The establishment of these unitary forms of local government was permitted by The County Act of 1950. The "Alberta County", apparently modelled upon the county borough of England, combined the general administration of the municipality and that of the school division in one council, elected on a ward system.

The county form of local government differs in only one essential respect from that of the municipal district. This is the amalgamation of the municipal council and the school board in one body - the county council. This amalgamation eliminates any disagreement over local tax levies or expenditures as between two separate elected bodies. The school board, in effect, becomes a committee of the county council. A single elected authority is responsible for both the levying and disbursement of funds for local services and education.

TERMS OF REFERENCE

When announcing its plans and programs for the present term of the Legislature the Executive Council of the Government of Alberta included a proposal to undertake a thorough study of public revenues and expenditures at both the provincial and local levels of government. The following policy statement issued by Premier E.C. Manning in November, 1962, outlined the purpose and the nature of the proposed study:

"Having regard to the public concern engendered by steadily rising public expenditures resulting in an ever-increasing burden of taxation and debt, the government proposes to invite representatives of municipal government, school administration, business, agriculture and labour to join in a factual study of public expenditures and the manner in which they can best be controlled and financed having regard to the legitimate needs and best interests of the people of the province as a whole.

"Without limiting the generality of the foregoing, this study will include:

(a) A survey of current and projected provincial and municipal public expenditures to determine the extent to which they are necessary and justified, having regard to all the factors involved.

(b) An analysis of the various categories of public services and expenditures to determine the ways and means by which they can best be controlled and the order of priority to which they properly should be assigned.

(c) An examination of the incidence of taxation and other revenue sources to determine the most equitable methods of obtaining the revenues required to finance necessary public expenditures.

"Every effort will be made to familiarize the public with the findings of these studies to the end that the people themselves can intelligently appraise the issues involved and give wise direction to their elected representatives charged with the responsibility of implementing the public will."

(REPORT OF COMMITTEE)

THE PAST TEN YEARS OF POWER

(From Page 3)

Of particular



SECRETARY'S CALENDAR

JUNE						
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

Municipal District Act

5th - Secretary-treasurer shall prepare a statement of monies received and their disposition, submit to council at next meeting and enter a copy in the minutes. Sec. 61(1)(v).

May 1 - First third of the School Foundation Program requisition due to Department of Education. Sec. 304a. School Act.

June 15 - Second quarter of supplementary school requisition due. (Unapproved costs). Sec. 338.

June 30 - Requisition for unapproved hospital costs to be paid on or before this date. Sec. 16. Alberta Hospitals Act.

July 1 - First third of Hospitalization Benefits requisition due to Department of Municipal Affairs. Sec. 50. Alberta Hospitals Act.

Prior to September 15th the council shall provide for holding a nomination meeting on the 1st Saturday in November. Sec. 96(1).

Town and Village Act

15th - Secretary-treasurer shall prepare a statement of monies received and their disposition, submit to council at next meeting and enter a copy in the minutes. Sec. 67(r).

May 1 - First third of the School Foundation Program requisition due to the Department of Education. Sec. 304a. School Act.

June 15 - Second quarter of supplementary school requisition due. (Unapproved costs). Sec. 355.

June 30 - Requisition for unapproved hospital costs to be paid on or before this date. Sec. 16. Alberta Hospitals Act.

July 1 - First third of Hospitalization Benefits requisition due to Department of Municipal Affairs. Sec. 50. Alberta Hospitals Act.

July 1 - Appoint enumerators on or before this date. Sec. 112(1).

Note: Secretary-treasurers are advised to obtain the 1966 Amendments to their Acts from the Queen's Printers so as to be aware of various changes in legislation. (E. J. B.) ●

power which could be sold very cheaply, providing a market existed for it, but generally speaking if such dams were attempted today, when there is a market for only a limited amount of power, the cost per KWH would be exorbitant.

POWER RANKS FIFTH:

Recently considerable attention has been focused on large river diversion schemes affecting all our streams which rise in the mountains, and these studies are very timely. While under our existing Water Resources legislation the use of water for generating power ranks fifth in the list of priorities (and quite rightly so) - being outranked by domestic, municipal, industrial and irrigation purposes - nevertheless it will be necessary to examine these water diversions very carefully to ensure that power generation is one of the factors being taken into account in any particular case.

Now that the tremendous source of energy of the Athabasca oil sands is on the threshold of development, the possibility of generating electric power from liquid coke may be opened up. The combination of fuel such as this with the possible 2,000,000 H. P. of hydro capacity, which is available on the Athabasca River from the vicinity of Athabasca Town to McMurray, make this region of the province most interesting as a source of power. The Ft. McMurray region could also become a large power consuming area and we might expect secondary industries to develop there. At the moment, the only significant increase in load has been in the Town of Ft. McMurray where Canadian Utilities Ltd. have had to make several additions to their internal combustion plant. Power-wise, that area of the province will be worth watching.

Fortunately, Alberta is richly endowed with energy resources from which we can produce cheap power. But for the very reason that we have these resources whose low costs per B.T.U. are all infinitesimally close to each other, it becomes most difficult to predict which of them will be used for future power generation. The generating capacity in the interconnected system, as at the end of the year, was just over 1300 M.W. Our power load now is of such a size that we can begin to think in terms of units of 300 M.W. Such units, if they are thermal, make it possible to open up a large scale mine and to operate it at a high load factor, and hence to produce coal for power generation at a low cost per ton and a very low cost per million B.T.U.'s.

The benefits of scale, however, have also enabled us to raise our sights with respect to hydro plants and now we can begin to consider some hydro sites which a few years back were

(To Page 8)

significance has been the construction of 69 KV lines in the Peace River country until now arising of these lines makes a complete circle starting from Valleyview and running through Grande Prairie, Fairview, Peace River and back to Valleyview. Lines of lesser voltage have been run north from Grimshaw and now reach as far as Paddle Prairie.

While such significant strides were being made and while all but two of the isolated plants of 1955 vintage have been replaced by transmitted power, other isolated plants appeared in the north of the province. A list of these, by no means complete, includes Chipewyan, Worsley, Red Earth, Wabasca, Atikameg, Simonette, High Level and Hay Lakes. The development of the Rainbow Lake oil and gas field is now bringing with it the necessity for power and steps are underway to supply it. The face of Alberta's north is changing and will continue to change as power lines are built to connect these isolated places.

At the present time, the total demand for power in the Peace River country is of the order of 40,000 KW. While the population of the area is nearly 6% of that of all of Alberta, it uses less than 3% of the power used in the province. This load is supplied by internal combustion units and by gas turbines at Valleyview, Fairview, and Worsley, which use natural gas as fuel, and by the new 138 KV Wabamun-Valleyview transmission line.

DIFFICULT TO PREDICT GROWTH:

It is difficult to predict how rapidly industry and thus population and therefore electrical load will grow in the area. At whatever rate it grows, supplying it will not present any particular problem. Thermal power can be generated anywhere that a fuel supply in the form of oil, gas, or coal is available. Oil is an expensive fuel and so far coal suitable for thermal plants has not been discovered in the Peace River country. During 1966, however, the Alberta Research Council is planning a preliminary study of the area within a radius of some sixty miles south of Grande Prairie.

Except for the vicinity of Worsley, a new discovery of natural gas in the areas have not been encouraging. During 1966 Canadian Utilities Ltd., however, are planning to install a 20 MW gas turbine in the Simonette oilfield and to feed surplus power out east to the main transmission line running along the Whitecourt-Valleyview highway. For the next few years or until some major industries develop in the Peace River country, it is likely that its power requirements will be supplied by installing additional gas turbines combined with importing power from the central part of the province.

It is possible that some power could be imported into the Alberta Peace River country from the Portage Mountain development at Hudson Hope. This power should become available in 1968 and use will be made of it providing that, for the relatively small quantity demanded by the load in that region, its delivered cost is less than that from other sources. The unit cost of transmitting this small amount of power will be high, so that it will probably have little effect in reducing the cost of power in that area. There has been some discussion about building an E.H.V. line to send power into the Edmonton area from Hudson Hope, but it is doubtful if this would be economical.

There are several power sites on the Smoky River and one or two on the Alberta portion of the Peace River. Canadian Utilities Ltd. have made some studies of the Smoky River and the capacity of power sites along it range from a low of 60 M.W. at the junction of the Kakwa and Smoky Rivers to 620 M.W. at Mile 283 from Mt. Robson. The maximum potential of the Smoky River could be about 1,000 M.W. In general, although this river suffers from geological formations which slump, it might be developed before the Peace. In the event of the establishment of a large industry such as the processing of the iron ore at Worsley, it might be possible to build the first hydro plant on the Smoky River, but even then it is likely that to make it economical much of the surplus power would have to be transmitted south to the rest of the province.

The Peace River, from recent studies made by the Alberta Power Commission, the Water Resources Branch, and the power companies presents some fair possibilities. The most interesting section of the river is that from the B.C. border to the Dunvegan bridge, in which it falls 110 feet. The lower valley banks in this stretch appear to be in a geological formation which will probably support a dam. While the Power Commission's preliminary study of the Peace River has already produced some information, the first stage of the study is not yet finished.

The building of dams and the creation of reservoirs of the magnitude needed to develop the Smoky and the Peace Rivers however must await the need for large blocks of power - blocks which are much greater than can be forecast for several years to come. When that time comes, it will be possible to generate a tremendous amount of

● The IMPORTANCE of

(Concluded from last Month)

MUNICIPAL FINANCE STATISTICS

BY W. B. BOLTON, CHIEF,

**GOVERNMENT FINANCE SECTION
DOMINION BUREAU OF STATISTICS**

The D.B.S. program is, as you would expect, affected by the increasing interest and concern of those economists and budget analysts whose decisions have an important influence on your budget as well as the budgets of the federal and provincial governments.

Numerical information is a tool and its effectiveness depends on the skill and judgment of the individual or group using it and the circumstances in which the tool is applied. The projections of future economic needs are based on past performances. Statistics of the results of present and previous policies become such a tool in the hands of the economist.

Another important group of users are private researchers such as the Canadian Tax Foundation. These organizations make special analyses to provide the public with an independent non-government viewpoint. Most of their basic information is drawn from DBS files.

Perhaps the most prominent group of government users interested in municipal finance operations are the federal and provincial groups responsible for the tax agreement negotiations, and various royal commissions examining government finance. Among other things they are vitally interested in what amounts are being raised, spent, borrowed or invested in order that they may estimate how much must be raised, spent, borrowed or invested in future years. They want to know, for example, what the potential borrowings will be so that they measure the impact on the total amount of funds available. They also want to measure how much will be spent and on what, so that they may compare the level of service being provided and how much the tax burden may be in various parts of the country.

NATIONAL ECONOMY AFFECTED:

Public finance plays a predominant part in the direction of the national economy. Trade, prices, employment, etc., are all affected by the financial policy of governments. This relationship between public finance and the national economy is becoming increasingly close in recent years as a result of the gradual growth and expansion in the recognized function and services of governments. Government budgets serve as a medium for redistribution of the national income, and the objects for which public monies are expended are important factors in determining the direction of the productive economy of the nation. This is particularly so of the federal government although the financial policies of budgetary programs of provincial governments can and do have an important influence on some local and economic conditions. The same may be said in a general way of municipal governments although they operate in a more restricted sphere, have limited and less taxing powers (mainly real property taxes) and therefore have less flexibility in their budget programs.

Public finance is perhaps the key factor in intergovernment relations. Comparative public finance statistics are invaluable for studies involving intergovernmental comparisons, checks on administrative efficiency, the economy of operations, relative tax burden and studies related to the framing of proposals on public investment, health and welfare programs and for negotiating tax rental agreements and tax sharing agreements between the provincial, municipal and federal governments.

In every case the user of DBS statistics wants to be assured that the financial language is the same for federal, provincial and municipal government statistics. For example, they may want accurately to compare social welfare expenditures of two or more provinces. This is almost impossible if they rely on information contained in the published reports of governments. The public accounts of the ten provinces do not reflect an adequate degree of uniformity, nor do the financial reports published by municipalities. This is not to suggest that government reports are inadequate. I merely want to record the fact that because they are not the same, some sort of nationally uniform statement is required for purposes of comparison.

It is important that the municipal finance officer realizes the new status of municipal government in Canada. Municipalities are assuming additional responsibilities, spending much more money and having a greater influence on the national financial community than ever before. Municipalities, particularly the large urban units, have as much financial impact as most of our major industries and it is essential that we have up to date information so that questions concerning the availability and use of money can be wisely handled. These

decisions, whether made by provincial or federal governments or industry for that matter, have both a direct and indirect effect on the municipal financial program. From a municipal finance officer's point of view I suggest it is in his own interest to co-operate to the greatest possible extent in the production of accurate, timely financial statistics concerning the operation of his and other municipalities. Unquestionably, D.B.S. reporting forms are a burden. With equal emphasis, however, it can be said that good government financial statistics are an absolute necessity.

We must also recognize the extreme diversity of local government structure in Canada which materially affects the financing problem. In some provinces the degree of services of a local nature provided by the provincial government is much higher than in others. British Columbia, having only a small proportion of the province municipally organized, is an example of very heavy provincial government spending on local services. Other provinces have all or a very high proportion of their area municipally organized. This diversity of organizational structure cannot be overlooked when compiling statistics.

IMPORTANCE OF GOVERNMENT ACTIVITIES:

Data identification is a vital piece of the measurement of government influence. As I have indicated previously municipalities are having an ever increasing effect on the sociological structure, especially in the field of welfare, education and the location of industry. The combined policies of municipal councils have a definite influence on the economic structure of the province. This influence is much greater than the volume of money transactions. However, we can examine the money transactions to determine the efficiency of government and the effect of government decisions on the sociological order, e.g. expenditures on recreation facilities, child welfare, parking and industrial sites can be analyzed by the economist and the sociologist to determine the impact of municipal government decisions on juvenile delinquency, welfare, commerce and industry.

Money transactions can be described as a measurement of the medium of the exchange to provide services. The municipal finance officer accounts for the use of money and D.B.S. tells what governments did with their money. This can be interpreted to answer the question "What are Canadians asking for and how are these requests being accomplished?" The story is told by putting a dollar value on the services rendered. To show Canadians what governments are costing we must have all the government transactions - hence our interest in the operations of local boards and commissions and government enterprises.

The growth of the fiscal demands for tax money, by federal, provincial and municipal governments, has reached such a point that the combined influence of these demands on the economy must be measured at least on a quarterly basis, if not monthly. Our country is moving ahead so rapidly that we can no longer afford the luxury of annual reporting either by business or by government.

As municipal finance officers you are familiar with the size of your own municipality and are, no doubt, familiar with the size of the commercial and industrial concerns within your municipality. I believe that with very few exceptions the municipal government is the biggest operation that is being conducted within its boundaries and all of its affairs should be conducted accordingly.

In my opinion the biggest problem facing government officials today is to convince both the elected representatives and appointed officials of municipal governments that this is the case, and that the affairs of governments are too big and too important not to be made known to all interested persons at least on a quarterly basis.

In considering the question "What are the uses or value of municipal finance statistics?" we should also consider the potential savings to be achieved by intelligent use of the information made available. Surely an adequate set of data enabling comparisons of government performance in the field of finance would provide an opportunity for better public policies and administration. The evolving system of government in Canada is becoming increasingly complex, accompanied by frustrations not only for government officials but for the citizens at large. One thing that threatens is the ultimate control of the use of public funds will slip farther and farther from the hands of the private citizens. This is at least one reason supporting the preparation of a continuous flow of accurate, up-to-date, comparable financial information about municipalities. There is no longer any doubt that the nation should be better informed about financial trends in local government.

Much has been said of the needs of local government for greater revenue opportunities. It is also generally recognized I believe that the solution to the finance problems will not come from local government itself but rather from decisions made at the provincial or national level. To appreciate the challenge which confronts our local government revenue system one needs only to consider the (Next Page)

rising scale and cost of local public services.

DEVELOPMENTS IN MUNICIPAL FINANCE:

Now what are the latest developments in municipal finance statistics and what may be expected in the very near future? We have in recent years moved from the position where timely information on an annual basis was adequate, to the point where transactions of governments must be available on a quarterly basis in order to examine the seasonal patterns of finance operations and relate these to other economic indicators such as employment, capital construction and so on. The day has passed when timely, well documented information on government transactions produced on an annual basis is adequate. Today we are asked to produce even better quality information on a quarterly basis. We are also asked to produce annual estimates on a much more timely basis and in more detail than ever before.

Another development that faces D.B.S. in the immediate future is the need to reconcile the various analyses carried on with respect to government finance. For example, we must be able to produce a cross-classification which will show the relationship between (a) government expenditures by function and (b) the national accounts classification. We must also move with purpose in obtaining uniform national totals respecting municipal government expenditures on goods of a capital nature. This has been a real difficulty because of the manner in which municipalities keep their accounts.

Also we must be able to produce information that is of greater direct value to the municipal official. Here I am thinking, for example, of information that is useful at budget time. Program budgeting and performance budgeting involve planning. This planning surely should include some knowledge concerning what other municipal governments of similar size are doing with their money and how they are raising it. It has been a long time coming but today it is quite obvious that governments are beginning to realize the importance of comparing their actions with that of other governments having similar characteristics in an effort to find the most efficient spending and fund raising techniques. This growing interdependence manifests itself also in competition between governments for funds on the capital market.

Other governments want to know how much you intend to spend on health units or roads or police salaries. They also want to know how much of your money is being transferred to individuals or to other local government authorities. It is equally surprising how many legitimate interests there are in the availability and use of your cash. That is to say, where is money located at a given time and where it is moving to. The interdependence of government units in Canada is a problem we cannot overlook. We all have a responsibility to see that the right kind of information is available in order that the best possible decisions may be made. As the total amount of funds required for government purposes soars, more and more people are demanding more and more efficiency in the use of these funds and so the circle tightens around each of us.

CASE FOR MUNICIPAL FINANCE STATISTICS:

In somewhat sketchy fashion I have tried to present the case for municipal finance statistics and the problems facing D.B.S. in collecting and producing the kind of information that is needed. Reference has been made to the important role of the manual and the municipal finance officer with respect to the availability of basic data. We have reviewed the users' requirements. The influence of local government transactions on the total Canadian economy and vice versa have also been covered. Finally, we considered some recent improvements in this field of statistics. The present program of government finance statistics being developed by D.B.S. may be very briefly summed up. It is to provide on a quarterly basis, answers to the following questions:

- (1) What services does government provide?
- (2) What goods and services does government purchase and from whom?
- (3) What revenue does government obtain, and from whom?
- (4) How does government finance the payment of expenditures pending the collection of revenue; or put another way, how does government use cash and where do they get it?

At the present time we have information on government expenditure classified by function and also by economic categories. We are hoping very shortly to be able to publish a cross-classification in this respect to show both what government spent their money on and why they spent it. (Numbers 1 and 2).

Quite recently we have been studying the problem of analyzing the flow of funds in government financial transactions. We are obtaining monthly balance sheets from the federal government and have prepared for some time now a comparison of the change in the various asset and liability accounts to determine the transactions that resulted from the receipt of revenue and the disbursements of expenditure. We are presently negotiating with provincial governments to obtain quarterly balance sheets in this respect; and we hope that, through the

officials of provincial departments of municipal affairs and associations such as yours, we can persuade the major municipalities in Canada to furnish similar information within the next year. When we obtain this information from all governments we will be able to answer the question, "How is government expenditure financed pending the collection of government revenue?" (Number 4).

At an early date we expect to be able to obtain data on the financial transactions of municipal enterprises which, at the present time, is sadly needed.

One serious gap in the government field at the present time is education finance statistics. Recently, D.B.S., in co-operation with the provincial departments of education, revised the manual of accounting for school boards (originally issued in 1944). Based on the recommendations contained therein, we are hoping next spring to institute a quarterly reporting of school revenue and expenditures, from a sampling of the major school boards in Canada. When we realize that the expenditures of school boards approximate the expenditures of municipalities we can see how important it is to obtain these data.

The field of performance budgeting has not been explored in Canada to any great extent and we hope to be able to bring together the various interested parties to further the studies in this field. As a natural result of this we feel that there is a very great need for municipal statistics compiled for the major urban metropolitan areas and by economic regions in each province.

Our biggest problem in D.B.S. is the question of accuracy of data and timeliness of publication. We are presently carrying on discussions with the federal and provincial governments to standardize the machine coding classifications in order that we can obtain copies of either punch cards or magnetic tapes to summarize the data contained thereon well in advance of the publication of the federal and provincial public accounts. When we have reached a satisfactory arrangement with the federal and provincial governments we will pursue this matter with officials of the provincial departments of municipal affairs and the major municipalities.

CONCLUSION:

These attempts at uniformity are relatively recent. The first Canadian Municipal Finance Reporting Manual was published in 1942. This is within my remembrances as a public accountant and I don't consider myself to be old. We haven't developed the ultimate answer to government financial analysis, but we certainly have experienced the frustration due to this answer now being available. Persons engaged in economic analysis throughout Canada fully realize the importance of being able to compare the financial performance of all municipalities in Canada. It is no longer good enough to compare the performance of individual municipalities within a single province. The government financial structure in Canada is too interwoven for intra-provincial comparisons of municipal operations to be sufficiently meaningful for an adequate analysis of the financial problems faced by Canadian municipalities today.

We are actively seeking ideas from responsible persons in all provinces concerning how best we can report the activities of municipal government. We will be very pleased to receive yours, either directly through the department of municipal affairs. There is a new era of communication and co-operation throughout Canada and indeed on an international basis, which emphasized the need for comparable source-function classifications of government revenues and expenditures combined with the economic classification of government expenditure. The U.N. Economic and Social Council have even published a manual of government account classification to provide such analysis.

STABILITY in ALBERTA

Land costs in Alberta are described by construction industry and government sources as "remarkably stable", with overall price increases amounting to "2% or less" in the past year.

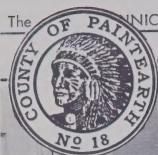
This stability is attributed to several factors:

- o Alberta's uniform assessment system, under which there is little or no variation in tax rates between municipalities. This, according to experts in the land market, has tended to disperse industry throughout the Province, thus reducing competition for land in certain areas.

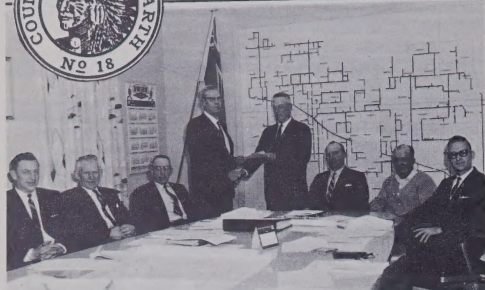
- o Continuing growth, in area, of major communities, as a result of annexation. This has tended to provide surplus land for housing, thus heading off a cost spiral which might otherwise develop.

- o The growing trend toward high-rise apartment living. This trend has favorably affected land costs by cutting into demand for residential lots.

o The Financial Post



LONG IN THE SERVICE



LAST COUNCIL MEETING: Presentation to R.W. Elliott was made by Reeve C.H. Thornton, County of Pinteareh, on Mr. Elliott's retirement in December after twenty-two years of service on council. Council members appearing above are R. J. McNight, J. Gadsersen, E. English, Mr. Elliott and Reeve Thornton (standing), J.I. Lynn, P. Perrault and Secretary-Treasurer Guy Tomlinson.

(Castor Advance Photo)

RETIREES AFTER 22 YEARS

Councillor R.W. Elliott was honored in December on the occasion of his retirement after twenty-two years of service by the County of Pinteareh No. 18. A presentation was made to Mr. Elliott on behalf of the Council by C.H. Thornton, Reeve of the County.

Councillor Elliott entered municipal service in 1944 with the formation of enlarged municipal district and retained his position as member of the council when the County was formed in 1962. At the time of his retirement he was the last of the councillors elected to the 1944 council remaining in office.

Through his entire municipal experience, Mr. Elliott was councillor for Division Seven. His impressive record of service was marked by the fact that in looking after the affairs of his Division, he spent 727 days and travelled over 71,000 miles. Regardless of season or weather he missed very few meetings of council in his twenty-two years and was never late for a meeting.

Mr. Elliott witnessed many changes in the administration of the Pinteareh community. Twenty-two years ago the Municipal District owned only one road patrol and indeed had very few miles of roads well enough improved to be gravelled. At that time also the annual budget for the District was \$300,000. During his time in office the budget increased to \$1,300,000 while the County now maintains a construction fleet valued at half a million dollars. This enables the County to provide excellent roads to all its residents.

Mr. Elliott lost his wife early in the new year. Indicating that he has no intention of remaining idle, he is now representing the National Employment Service of the Federal Government on the Regional Farm Labor Board.

The PAST TEN YEARS OF POWER

(From Page 5)

too large to contemplate. And so we go on:

Our program of installing future generating equipment envisages coal-fired and gas-fired steam plants, base load hydro plants, with here and there a peak load hydro plant thrown in. At any one time perhaps half a dozen installations are under consideration. Then, as the deadline approaches when we must actually start building a new plant, one is chosen - the one of possibly six which at the moment appears to be infinitesimally less costly in mills per KWH. Having these multiple choices between many competing power sources, all of which are very close in cost, makes it difficult to predict what we will do, in say, ten years from now.

GUIDELINES CLEAR-CUT:

However, there are certain clear-cut guide lines. First of all, natural gas, while used extensively in present plants, cannot, except by a combinations of rare circumstances, compete in cost per B.T.U. with large scale strip-mined coal. Moreover, natural gas has certain properties which make it rather a shame to burn up in big steam furnaces. Secondly, many of our rivers, unlike these in Manitoba, Ontario, Quebec and B.C., do not lend themselves to producing power 24 hours a day and 365 days in the year. To be used as base load plants they require the creation of expensive reservoirs. Thirdly, for many years nuclear power, although making great strides in the East and in the United States will be too expensive to compete with our fossil fuels. Nuclear power, however, will bear watching because

as atomic plants get larger and larger the cost per million B.T.U.'s naturally decreases. In perhaps twenty years in Alberta it may well be that nuclear power will set the upper limit of what can be paid per million B.T.U.'s for coal for power generation.

So at the moment our practical future choices are limited to coal-fired thermal plants and hydro installations. For some time in the future, coal for thermal power plants will be strip-mined. At the moment the Wabamun plant, during a full year's operation, uses something of the order of 1,000,000 tons of coal. Alberta's 1965 output of coal for all purposes was around 3,400,000 tons. As new coal-fired plants are built, the output of coal will increase by leaps and bounds.

Such power plants require major coal fields to provide for their needs for thirty or forty years. An ideal field must have at least 100 million tons of coal which has an overburden of not more than 100 feet, and it must be located close to a large supply of cooling water. Only a relatively few areas have coal deposits which make them ideal for power generation requirements; we can count the number of such fields on the fingers. It appears likely that the next three major coal fields to be developed as power plant sites will be South Wabamun, Sheerness and Genesee. After they get committed for thermal generation, it will be necessary to consider other coal fields such as Ardley or to give some thought to going to some deep seam operation which will not only produce higher B.T.U. coal, but when operated at a high load factor might come up with a surprisingly low cost per million B.T.U.'s.

To supply Alberta's load during the 30-year period from 1970 to 1999, we expect to add thermal plants totalling some 9,800 M.W. In addition to this, of course, there will be many M.W. installed in the existing or new hydro plants but, while it is possible that some hydro plants may be built for base load operation, this added capacity will be used mainly for peaking purposes. Naturally, the picture even twenty years from now is pretty hazy, but some rather careful thinking has gone into our forecast. In any event, this forecast does give an idea of the magnitude of the amounts of coal we may need for Alberta's requirements.

Normally we would expect to build a power plant on one of these seams of coal and then to install generators up to the limit of the capacity of that coal mine before moving on to another site on another mine. Other factors such as geography, etc. come into this picture and it is quite possible that a second power plant on a second mine would be started before all of the generating capacity is put into a previous plant. Normally, also, one would expect to develop the mine with the least costly coal first and then to move on to the mine with the next lowest cost coal. This, too, will not always be the case because of geographical considerations.

NUCLEAR PLANT MAY COME:

Somewhere after 1990 when loads are large enough to enable a large nuclear plant to operate at a high load factor, such a plant may then be competitive with the higher cost strip coals which are still not committed for base load generation. But even after having installed the first nuclear plant, it would probably be advisable to build more coal fired plants before building a second nuclear station.

We are still looking for large seams of coal that could provide large quantities of cheap power. Furthermore, much work still remains to be done in studying the seams of which we already know. Undoubtedly, these studies will change the picture we see now and will change the order in which these mines will be opened up for power purposes, but they are not likely to change the quantities of coal needed. Inherent to this problem, of course, are the uncertainties in our estimates together with lack of detailed knowledge of our coal resources. Changes either in our estimates or brought about by increased studies of our coal resources could affect the final answers.


Any estimates we make now may be altered when the Trans-Canada Gridstudy is completed. The Power Commission is represented on the Grid National Working Committee but it is still too early to determine whether or not such a grid is feasible.

Work 8 hours; sleep 8 hours - But NOT the same 8 hours.
o Sign in Picture Butte

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